



# **NATIONAL BIOTERRORISM PREPAREDNESS AND RESPONSE INITIATIVE**

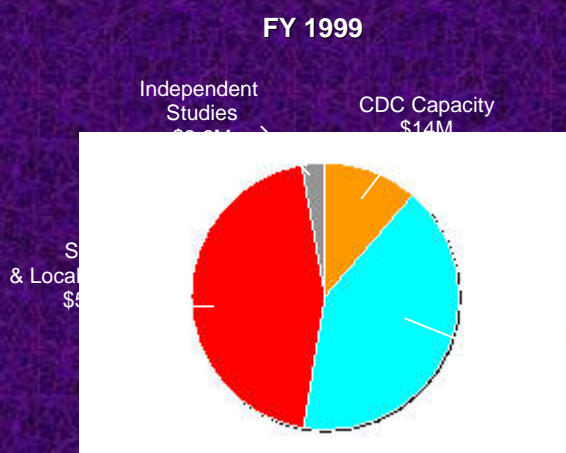
## ***Overview and General Information About the Initiative***

***Prepared by the Bioterrorism Preparedness  
and Response Program – National Center for  
Infectious Diseases – Centers for Disease  
Control and Prevention***

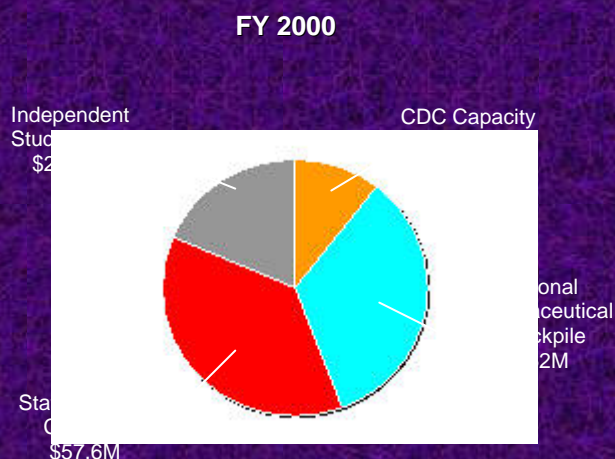
# NATIONAL BIOTERRORISM PREPAREDNESS AND RESPONSE INITIATIVE

## Background

As part of the Department of Health and Human Services (DHHS) 1999 Bioterrorism Initiative, the Centers for Disease Control and Prevention (CDC) was designated to lead an effort working with governmental and non-governmental partners to upgrade the nations' public health capacity to respond to bioterrorism and establish a Bioterrorism Preparedness and Response Program (BPRP). Critical to success of the BT Initiative is to ensure capacity is developed at federal, state, and local levels. Funds appropriated to support this effort at the federal, state and local levels have been distributed as follows:



**TOTAL: \$123,600,000**



**TOTAL: \$154,680,000**

## Top Achievements to Date

1. Cooperative Agreements in place with States/Cities
2. Biological Agents of Highest Public Health Importance Identified
3. CDC's Rapid Response and Advanced Technology Laboratory Operational
4. Dedicated Bioterrorism Preparedness and Response Workforce Established at CDC
5. Joint USAMRIID/CDC BT Course Conducted
6. National Laboratory Response Network Operational
7. On-Scene Support for World Trade Organization Meeting in Seattle, Washington and the NYC West Nile Encephalitis Outbreak
8. Level "A" Laboratory Training Conducted
9. Established 3 Exemplar Centers for Public Health Preparedness
10. Developed the DOJ Public Health Assessment Tool
11. Created the National Pharmaceutical Stockpile Program
12. Chemical Laboratory Response Enhanced at CDC

## 2000 Priorities

- Enhance Infectious Disease Outbreak Response, Coordination, and Support
- Improve Federal, State, and Local Laboratory Readiness
- Enhance Local Epidemiology and Surveillance Capacity to Detect Possible BT Agents
- Improve Use of Information and Communication Technologies in BT Preparedness/Response
- Focus on Improving Response to a Smallpox Emergency
- Support Public Health Preparedness from the Local Level Up



# National Bioterrorism Preparedness and Response Initiative

## Success to Date

- Cooperative Agreements with Cities and States in place:** In FY 1999 and 2000, over \$40 million annually was awarded to 50 states and 4 major metropolitan health departments to support bioterrorism preparedness and response. Project support teams have been formed at CDC and are in the process of working with state and local health departments in developing effective, public health driven, preparedness and response plans to counter bioterrorism.
- Biological Agents of Highest Public Health Importance Identified:** These agents have been recognized as important based upon input from experts within public health, private health, the military, the intelligence community and academia. This list will be used to prioritize and direct activities in the areas of: preparedness and response planning, laboratory enhancement, surveillance and epidemiology, training, communication, and education.
- CDC's Rapid Response and Advanced Technology Laboratory Operational:** CDC has organized a team of laboratory professionals whose sole responsibility is to provide the necessary laboratory services needed to rapidly and accurately analyze specimens that are suspected to be potential bioterrorism threat agents.
- Dedicated Bioterrorism Workforce established at CDC:** A dedicated staff of more than 100 public health professionals currently provide: epidemiologic, surveillance, laboratory, and programmatic "bioterrorism-focused" support, fulltime at CDC. This support exists within CDC's National Center for Infectious Diseases (NCID), Bioterrorism Preparedness and Response Program (BPRP) with additional subject matter support provided from each of CDC's Centers, Offices, and Institutes.
- Joint USAMRIID Bioterrorism Satellite Course Conducted:** On September 21 – 23, 1999, CDC, in Collaboration with the U.S. Army Medical Research Institute of Infectious Diseases, conducted the first joint training course entitled "Biological Warfare and Terrorism." Over 17,000 public health professionals attended via 700 downlink sites.
- National Laboratory Response Network Operational:** In collaboration with the Association of Public Health Laboratories (APHL), CDC has operationalized a secure web-based network that allows state, local, and other public health laboratories access to guidelines for analyzing biological (bioterrorism threat) agents. The site also allows authenticated users to order critical reagents needed in performing laboratory analysis of samples.

# National Bioterrorism Preparedness and Response Initiative

## Success to Date - Continued

7. **Provided On-Scene Support for the World Trade Organization Meeting in Seattle, Washington and the West Nile Encephalitis Outbreak in New York City:** CDC staff provided assistance in identifying causative agents, conducting epi-case investigations and are working on developing enhanced surveillance systems to detect diseases. These events heightened the need to develop "Special Event" surveillance and response capabilities within CDC to effectively address these challenges in the future.
- Level "A" Laboratory Training Conducted:** CDC conducted this training of 700 plus public health laboratories and other public health officials in August and September 1999. This training is being facilitated through the National Laboratory Training Network (NLTN) and will continue throughout 2000. Training for Level "B" and "C" laboratories will commence later this year.
- Established 3 Exemplar Centers for Public Health Preparedness in Monroe County, New York; DeKalb County, Georgia; and Denver (City & County), Colorado:** These Centers are focusing their efforts on improving public health infrastructure as it pertains to public health information technology in response to bioterrorism. Model projects are being pursued which will provide needed information for states developing/implementing public health information systems.
- Department of Justice (DOJ) Public Health Assessment Tool Developed:** This process is one part of a three-part DOJ assessment which also includes an assessment of law enforcement and emergency services needs. These assessments are being conducted by local health jurisdictions to identify critical information needed to facilitate effective public health preparedness and response planning pertaining to bioterrorism. CDC, working with DOJ, will assist in conducting detailed analysis of the assessment data which will aid state and national planning efforts.
- Creation of a National Pharmaceutical Stockpile Program (NPSP):** Work has begun on developing the NPSP. Currently, several caches of medical materiel have been created which contain antibiotics, chemical interventions, and various other medical support supplies. Work continues on developing the NPSP to ensure that the appropriate pharmaceuticals are available to respond biological/chemical terrorism anywhere, at anytime within the U.S. An agreement with the Department of Veterans Affairs to assist CDC with purchasing, storing, and rotating stockpile material has been finalized.
- Chemical Laboratory Response Enhanced at CDC:** A team of public health professionals has been organized to respond to a biochemical incident on a 24 hour/7 day basis. In addition, CDC has completed methods to measure 50 chemical agents as part of the Rapid Toxic Screen. These measures are being shared with state and local public health laboratories.



# **NATIONAL BIOTERRORISM PREPAREDNESS AND RESPONSE INITIATIVE FIVE YEAR STRATEGIC OBJECTIVES**

(1999-2004)

## **Preparedness and Prevention**

- Maintain a public health preparedness and response cooperative agreement which provides support to state and selected urban health agencies who are working with local agencies in developing coordinated bioterrorism plans and protocols.
- Establish a national public health distance-learning system which provides biological and chemical terrorism preparedness training to health-care workers and to state and local public health workers.
- Disseminate public health guidelines and performance standards on biological and chemical terrorism preparedness planning for use by state and local health agencies.

## **Detection and Surveillance**

- Strengthen state and local surveillance systems for illness and injury resulting from pathogens and chemical substances that are on CDC's critical agents list.
- Develop new algorithms and statistical methods for searching medical databases on a real-time basis for evidence of suspicious events.
- Establish criteria for investigating and evaluating suspicious clusters of human or animal disease or injury and triggers for notifying law enforcement of suspected acts of biological or chemical terrorism.

## **Diagnoses and Characterization of Biological and Chemical Agents**

- Establish a multi-level laboratory response network for bioterrorism which links public health agencies to advanced capacity facilities for the identification and reporting of critical biological agents.
- Establish regional chemical terrorism laboratories which will provide diagnostic capacity during terrorist attacks involving chemical agents.
- Establish a rapid-response and advanced technology laboratory within CDC to provide around-the-clock diagnostic support to bioterrorism response teams and expedite molecular characterization of critical biological agents.

# **NATIONAL BIOTERRORISM PREPAREDNESS AND RESPONSE INITIATIVE FIVE YEAR STRATEGIC OBJECTIVES**

**(1999 - 2004)**

## **Response**

- Assist state and local health agencies in organizing response capacities to rapidly deploy in the event of an overt attack or a suspicious outbreak that may be the result of a covert attack.
- Ensure that procedures are in place for rapid mobilization of CDC terrorism response teams that will provide on-site assistance to local health workers, security agents, and law enforcement officers.
- Establish a national pharmaceutical stockpile to provide medical supplies in the event of a terrorist attack that involves biological or chemical agents.

## **Communication Systems**

- Establish a national electronic infrastructure to improve exchange of emergency health information among local, state, and federal health agencies.
- Implement an emergency communication plan which ensures rapid dissemination of health information to the public during actual, threatened, or suspected acts of biological or chemical terrorism.
- Create a web-site which disseminates bioterrorism preparedness training information, as well as other bioterrorism-related emergency information, to public health and health-care workers and the public.

***Reference: CDC/MMWR:Recommendations and Reports "Biological and Chemical Terrorism: Strategic Plan for Preparedness and Response", April 21, 2000/Vol. 49/No. RR-4***



## **NATIONAL BIOTERRORISM PREPAREDNESS AND RESPONSE INITIATIVE**

### **Federal Partners**

- **Department of Justice** (National Domestic Preparedness Office, Federal Bureau of Investigation, Office of Justice Programs)
- **Department of Agriculture**
- **DHHS/Office of Emergency Preparedness (OEP)**
- **Department of Defense**
- **Department of Veterans Affairs**
- **Food and Drug Administration**
- **Department of Energy**
- **Environmental Protection Agency**
- **Federal Emergency Management Agency**
- **The National Security Council**
- **Department of State**

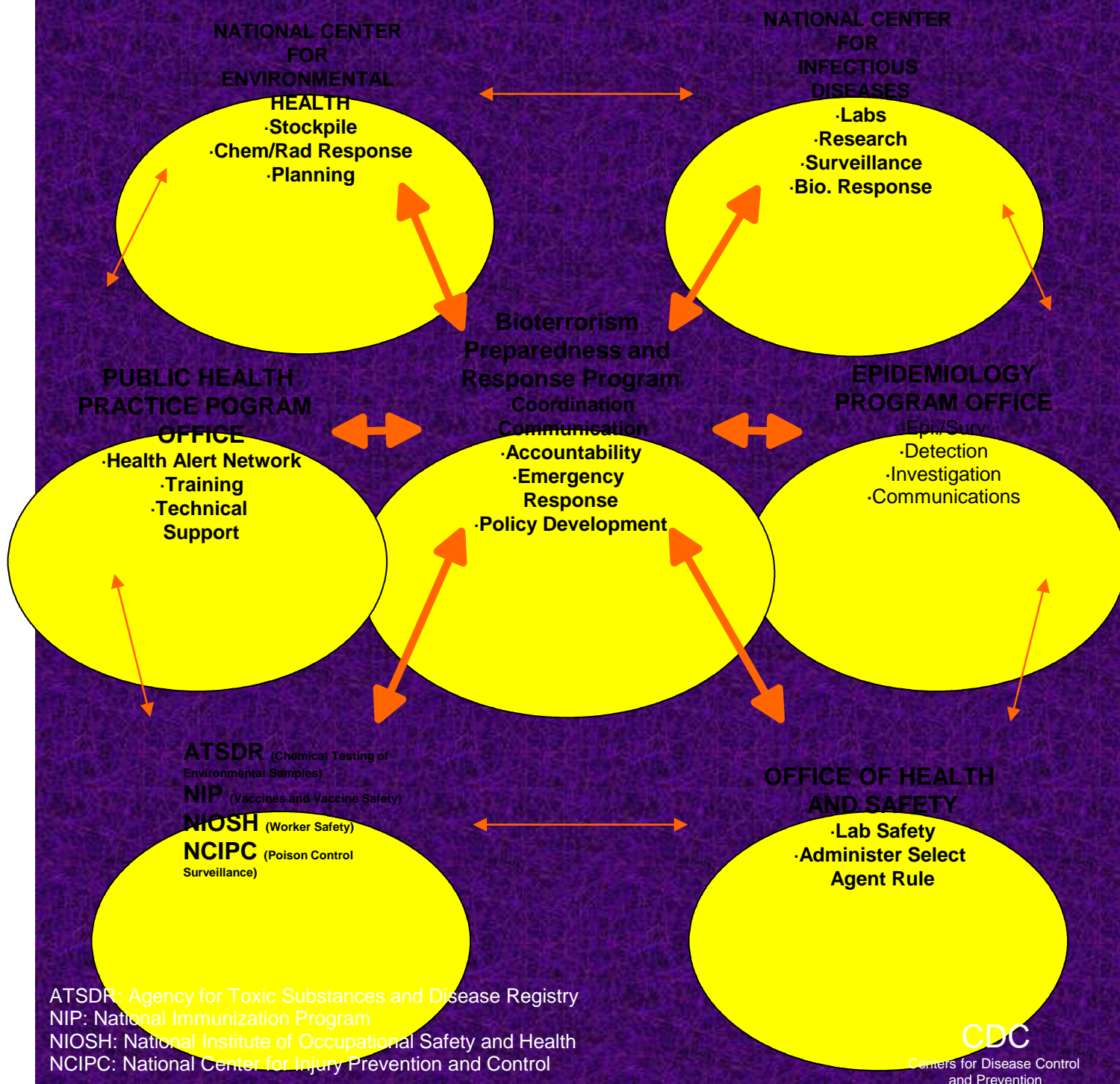
# **NATIONAL BIOTERRORISM PREPAREDNESS AND RESPONSE INITIATIVE**

## **Non-Government Partners**

- Association of State and Territorial Health Officials (ASTHO)
- National Association of County and City Health Officials (NACCHO)
- National Association of Local Boards of Health (NALBOH)
- American Public Health Association (APHA)
- Association of Public Health Laboratories (APHL)
- American Society of Microbiology (ASM)
- National Registry of Emergency Medical Technicians (NREMT)
- National Environmental Health Association (NEHA)
- American College of Emergency Physicians (ACEP)
- National Governors Association (NGA)
- Council of State and Territorial Epidemiologists (CSTE)
- American Nurses Association (ANA)
- National Emergency Management Association (NEMA)
- American Medical Association (AMA)
- American Hospital Association (AHA)
- International Association of Fire Chiefs (IAFC)
- International Association of Police Chiefs (IAPC)
- Association of Schools of Public Health (ASPH)
- Association of Teachers of Preventive Medicine (ATPM)



# NATIONAL BIOTERRORISM PREPAREDNESS AND RESPONSE INITIATIVE ORGANIZATION FOR PREPAREDNESS



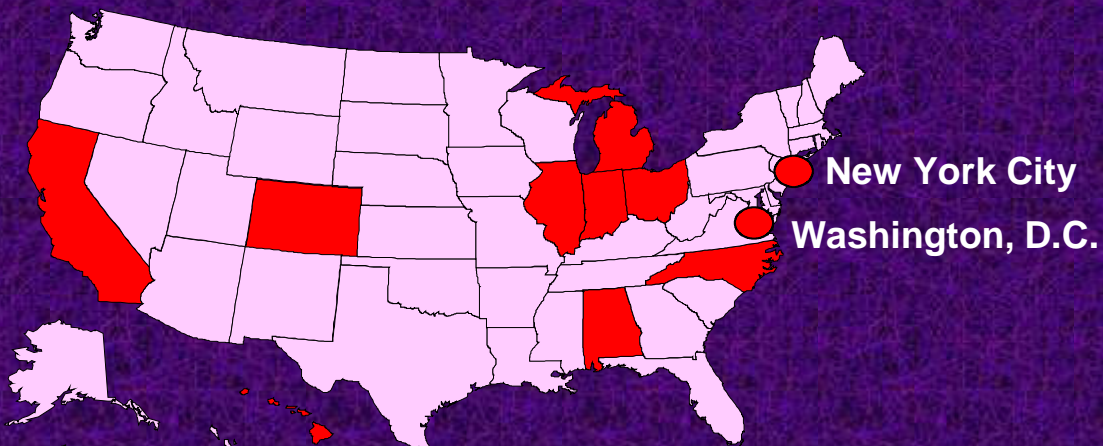
Updated: May 8, 2000

## Background

The increasing global threat of biological or chemical terrorism affirms the need for public health planning at the local, state, and federal levels. CDC and state and local health agencies and other stakeholders must assess their capacities to detect, diagnose, and mitigate the effects of bioterrorism, and identify the steps needed to effectively prepare and eventually respond. Financial assistance, guidelines, technical support, and performance standards will be developed and shared with state and local partners to assist preparedness efforts.

## Plan for 2000

To aid in achieving preparedness objectives, eleven (11) state and city health departments received a total of \$1.5 million in FY 1999. Areas designated on the U.S. map received funding and are currently working toward developing model public health-focused, bioterrorism preparedness and response plans.



- Develop planning guidance for state and local health agencies.
- Finalize operational activities of the National Pharmaceutical Stockpile (NPS).
- Conduct public health readiness assessments of state and local health agencies – Department of Justice (DOJ) Public Health Assessment.
- Review progress of sites funded to develop model preparedness plans.
- Foster exchange of information with stakeholders.
- Participate in and promote simulated BT response exercises.
- Assess and train state and local health officials on BT preparedness.
- Encourage and support bioterrorism research agendas that impact preparedness and response efforts.

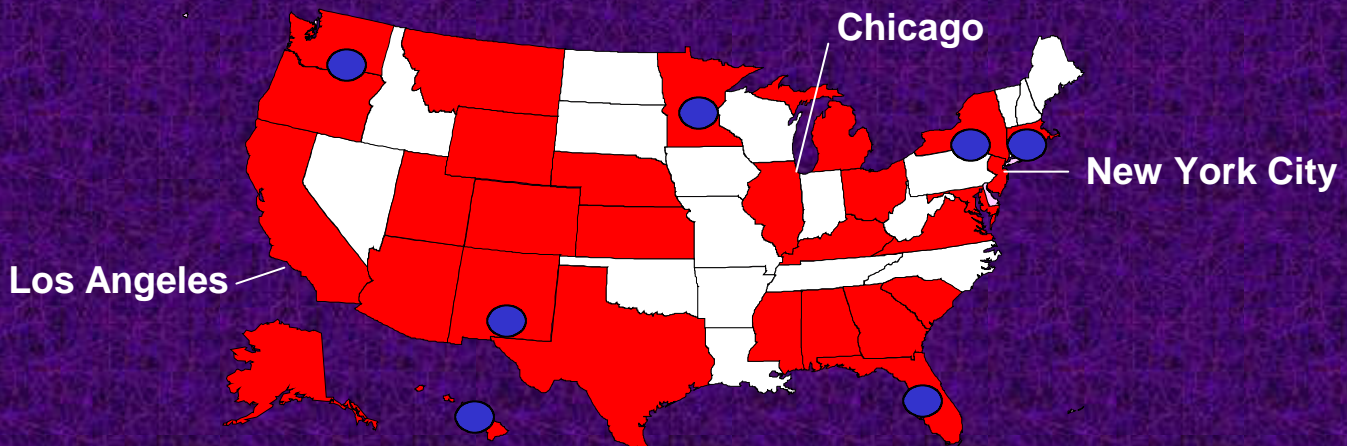


## Background

Early detection of an unusual or unexplained illness or injury possibly due to bioterrorism saves critical time needed for public health professionals and emergency responders to effectively respond. Federal, state and local health agencies must improve surveillance systems while simultaneously developing new mechanisms for detecting, evaluating, and reporting suspicious events that might represent covert bioterrorist acts. Partnerships with critical front-line elements such as hospital emergency departments, laboratories, poison control centers, medical examiners, EMS offices, clinics, hospitals, health care maintenance organizations, state and local health agencies, and pharmacies are necessary to ensure early detection and reporting of unexplained illnesses and injuries.

## Plan for 2000

To assist with developing enhanced detection and surveillance systems, in FY 1999 a total of \$7.8 million was awarded to 41 state and local health agencies. These funds will give state and local health departments collaborating with their healthcare provider community new means to develop, enhance, and implement effective surveillance systems. Areas designated on the U.S. map received funding to enhance their detection and surveillance systems "Core Capacity". The dots signify "Special Surveillance and Epidemiology Projects" supporting the bioterrorism initiative:



- Strengthen state and local BT surveillance and epidemiologic systems.
- Improve surveillance methods designed to detect rare disease events.
- Enhance detection of zoonotic disease outbreaks that may be due to covert acts of BT and may infect humans.
- Work toward linking disparate sources of electronic surveillance data (e.g., National Electronic Disease Surveillance System Initiative).
- Develop a network to facilitate reporting of information regarding diseases or conditions potentially caused by BT agents.





## Background

A comprehensive public health response to bioterrorism involves epidemiological investigation, medical treatment and prophylaxis of affected individuals, and the institution of disease prevention or environmental decontamination measures. CDC will assist state and local health agencies by providing resources and developing expertise for investigating unusual events and unexplained illnesses. At the request of a state health agency, CDC/ATSDR will also be prepared to deploy Response teams to investigate unexplained, suspicious illnesses or unusual etiologic agents and Provide on-site consultation on medical management and disease control. CDC will also maintain a National Pharmaceutical Stockpile (NPS) to facilitate the availability of medical supplies and equipment that might be needed to respond to illness or injury caused by terrorist activity.

Approximately \$52 million has been earmarked in FY 1999 to support the NPS. The NPS includes: antibiotics, chemical interventions, as well as medical, surgical and patient support supplies. The NPS Program also has a cache of vaccine available to address smallpox threats.



First CDC 12-Hour Task Package being assembled for Y2K



## Plan for 2000

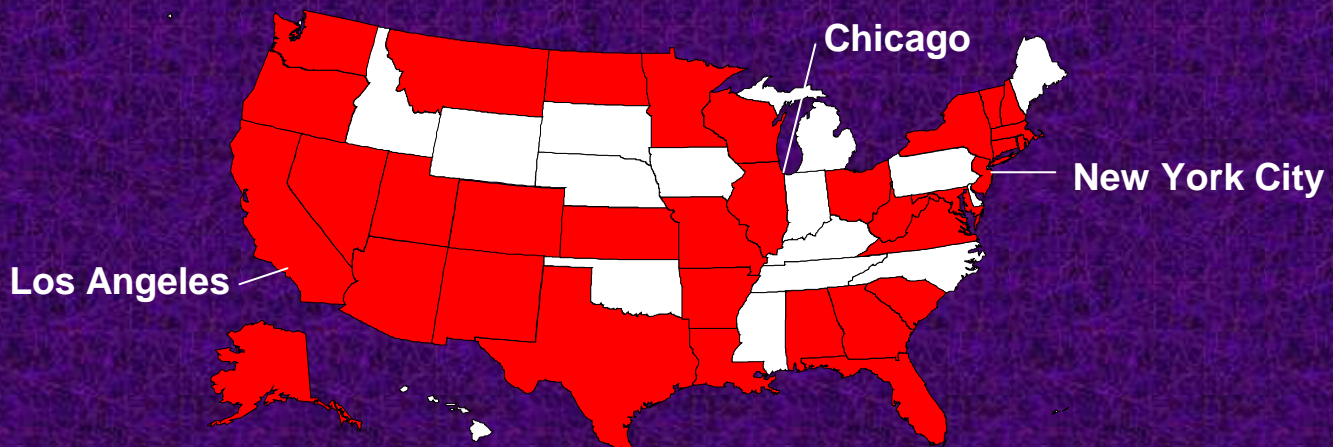
- **Ensure capability exists for special events surveillance**
  - Republican and Democratic National Conventions.
  - Support for the Sydney, Australia Summer Olympics and the 2002 Winter Olympics in Salt Lake City, Utah.
- **Mobilization of Dedicated BT Personnel Resources**
  - Provide consultative services/skills of CDC (epidemiology, surveillance, laboratory).
  - Promote training of BT staff to enhance skills.
- **National Pharmaceutical Stockpile (NPS)**
  - Implement NPS Operational Plan, in coordination with state response plans.
  - Coordinate ground operations and logistics for NPS readiness.
  - Implement a nationwide preparedness, training, and education program for partners in healthcare, first responders, and government.
  - Test operational readiness of the NPS.

## Background

Federal, state and local officials must have access to up-to-the minute emergency information, and their activities must be coordinated through a state-of-the-art communications system. Effective communication with the public via the news media will also be essential to limit terrorists' ability to induce public panic and disrupt daily life. CDC is working with state and local health agencies to build a modern electronic infrastructure for public health communications. This effort will support case reporting, dissemination of diagnostic results and will also provide bioterrorism preparedness and response training to epidemiologists and laboratorians, emergency responders, emergency personnel, other healthcare providers, and health and safety personnel.

## Plan for 2000

To support communications, \$21 million has been awarded in FY1999 to 33 state and 6 local health agencies to establish and maintain the Health Alert Network (HAN) that will support exchange of key information over the internet and provide a foundation for training that will reach a large segment of the public health community. Three of the local health agencies serve as Centers for Public Health Preparedness, exemplar sites for advanced communications training, and community preparedness. A key attribute of the HAN will be its ability to allow for rapid dissemination of public health advisories to the news media and the public at large. Areas designated on the U.S. map received funding to support development of the HAN and to support training associated with the BT Initiative:



- Establish baseline information technology capacity and measure Health Alert Network (HAN) progress at the state and local level.
- Establish the secure Epi-X Network – a portal for rapid outbreak reporting and notification for public health first responders.
- Provide authorized access to sensitive BT-related information to public health officials.
- Ensure nationwide dissemination of BT lessons learned.
- Ensure that emergency health information will be rapidly accessible to the public.
- Maintain the CDC/BT website with up-to-date information.



# NATIONAL BIOTERRORISM PREPAREDNESS AND RESPONSE INITIATIVE

## INFORMATION TECHNOLOGY ACTIVITIES ASSOCIATED WITH THE BIOTERRORISM INITIATIVE

Critical to any plan preparing a response to a bioterrorist threat is the need to ensure an infrastructure exists that will provide public health/health care professionals with accurate and timely communications helping them to reduce morbidity, mortality and unnecessary human suffering. The following information provides some detail on activities being sponsored by CDC to assist in this effort:

### The Health Alert Network (HAN)

The HAN is a nationwide, electronic platform “infrastructure” designed to ensure that all full-function local and state public health agencies have Internet access which will support: agency to agency communications; public health training; and access to distance-based learning technologies. The HAN also coordinates the development and maintenance of several CDC-wide information resources such as CDC’s Bioterrorism Preparedness and Response Program’s website: [www.bt.cdc.gov](http://www.bt.cdc.gov).

*The HAN is the “highway” on which programs such as NEDSS and Epi-X run on....!*

### National Electronic Disease Surveillance System (NEDSS)

NEDSS is designed to facilitate the development of an integrated, coherent national system for public health surveillance. Ultimately, it will support the automated collection, transmission, and monitoring of disease data from multiple sources (clinicians’ offices, laboratories, etc.) from local to state health departments to the CDC. NEDSS will replace current systems used by public health agencies for collecting disease surveillance data, which relies on multiple, disparate, independently designed and supported systems. This activity is being developed cooperatively with CDC and national local and state partners.

*NEDSS is a “system” which is intended to improve the accuracy and timeliness of the nation’s disease surveillance systems...!*

### The Epi-X Project

This is a secure, moderated, web-based exchange for public health officials to rapidly report and discuss disease outbreaks and other health events potentially related to bioterrorism as they are identified and investigated. Epi-X is designed with 24/7 staff coverage to assure rapid contact with key officials, access to real-time expert assistance, and secure, accurate communication to help officials identify bioterrorism events across jurisdictions.

*EPI-X is a defined “application” supporting the public health workforce with robust access to the Internet, the capacity to make secure connections, and the training to use and maintain this information technology...!*

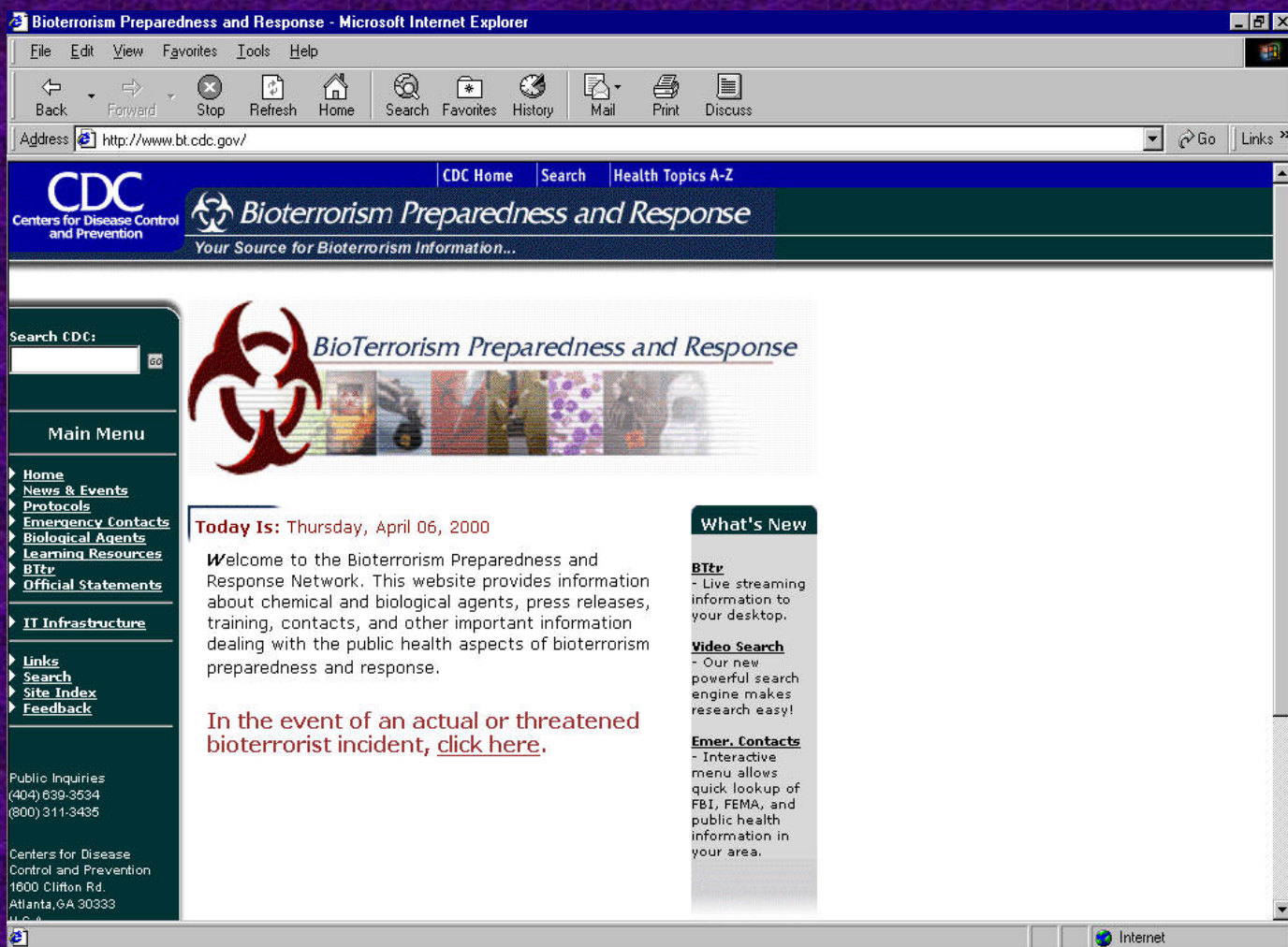
### The Laboratory Response Network (LRN)

The fundamental goal of the *Laboratory Response Network for Bioterrorism (LRN)* is to enhance laboratory capacity for preparedness and response to an act of bioterrorism by providing a collaborative network to facilitate rapid detection and analysis of chemical and biological agents. The LRN is a joint project supported by CDC, the Association of Public Health Laboratories (APHL), and an evolving constituency of front-line responders.

# NATIONAL BIOTERRORISM PREPAREDNESS AND RESPONSE INITIATIVE CONTACT INFORMATION

Centers For Disease Control and Prevention  
National Center for Infectious Diseases (NCID)  
Bioterrorism Preparedness and Response Program (BPRP)  
1600 Clifton Road  
Mailstop C-18  
Atlanta, Georgia 30033

**WWW.BT.CDC.GOV**



**CDC**  
Centers for Disease Control  
and Prevention

Updated: May 8, 2000